West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on December 11, 2012.

Permit Number: **R30-04100009-2012**
Application Received: **April 17, 2015**
Plant Identification Number: **03-54-04100009**
Permittee: **Equitrans, L.P.**
Facility Name: **Copley Run Compressor Station #70**
Mailing Address: **Route 4, Box 640 Weston, WV 26452**

Permit Action Number: *MM01* Revised: *August 30, 2016*

Physical Location:	Weston, Lewis County, West Virginia
UTM Coordinates:	541.30 km Easting • 4314.80 km Northing • Zone 17
Directions:	Interstate 79 to Exit 91. Proceed toward Weston for approximately 1 mile, take a left onto Copley Road (Route 17). The station is approximately ½ mile on the left.

Facility Description

Copley Run Compressor Station #70 is a natural gas transmission facility covered under Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate twenty-four (24) hours per day, seven (7) days per week. This station consists of three (3) 1350 hp compressor engines, one (1) 2250 hp compressor engine, one (1) 1800 hp compressor engine, two (2) 2.2 MMBtu/hr natural gas fired electric generators, one (1) 0.675 MMBtu/hr natural gas fired boiler, one (1) 0.03 MMBtu/hr natural gas fired hot water heater, two (2) triethylene glycol dehydration units, one (1) flare and six (6) tanks of various sizes.

Scope of Modification

The February 17, 2015 Consent Order Agreement (CO-R13,14-E-2015-05) between WVDEP and Equitrans L.P. requires the submittal of a permit modification application under Order of Compliance item #3. Equitrans has requested to revise the VOC and CO limits for the existing natural gas-fired compressor engine #5 (C-005) in table 5.1.1.b. of the Title V permit to match the engine manufacturer's emission guarantees. There will be no physical or operational change to the compressor engine. Additionally, the requirements for Dehy 004-02 listed in Section 9.0 of the Title V permit have been removed since the facility does not meet the definition of a "major source" in 40 C.F.R. 63 Subpart HHH.

Emissions Summary

The table below summarizes the facility-wide potential emissions and the changes to them for this proposed minor modification. All values in the table are in units of tons per year (tpy).

Pollutant	Renewal	MM01	Proposed
Carbon Monoxide (CO)	198.71	+ 11.34	210.05
Nitrogen Oxides (NO_X)	533.77	-0-	533.77
Particulate Matter (PM_{10})	12.86	-0-	12.86
Total Particulate Matter (TSP)	12.86	-0-	12.86
Sulfur Dioxide (SO_2)	0.17	-0-	0.17
Volatile Organic Compounds (VOC)	44.98	+ 4.97	49.95
Benzene	0.75	-0-	0.75
Ethylbenzene	0.18	-0-	0.18
Toluene	0.45	-0-	0.45
Xylene	0.28	-0-	0.28
n-Hexane	0.29	-0-	0.29
Formaldehyde	14.49	-0-	14.49
Total HAPs	21.90	-0-	21.90

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 210 tpy of CO; 533.77 tpy of NO_x; and 14.49 tpy of formaldehyde. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, and over 10 tons per year of a single HAP, Equitrans L.P.'s Copley Run Compressor Station #70 is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Permits for construction/modification
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. 63 Subpart HH	Oil and Natural Gas Production Facilities MACT
State Only:	None	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-2397C	April 8, 2016	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

I. **45CSR13, Permit No. R13-2397C**. This Class II Administrative Update permit was issued for incorporating the compliance plan of Consent Order CO-R13, 14-E-2015-05 into Permit R13-2397C and to correct the requirements listed in Section 9 of the current Title V permit to reflect the classification of Dehy 004-02.

In the update request, Equitrans claimed that the Dehy 004-02 was incorrectly identified as a "*large glycol dehydration unit*" in the Title V permit and should be classified as a "*small glycol dehydration unit*". However, as will be demonstrated below in the discussion of 40 C.F.R. 63 Subpart HHH, the unit is not located at a major source as defined in §63.1271.

Table A below demonstrates how the Title V permit has been revised in order to reflect the revised requirements in the updated underlying permit.

Table A

R13-2397C	Title V	Discussion
4.1.1.	5.1.1.	The emission limits have been revised to reflect the underlying permit.
4.1.2.	6.1.5.	• The maximum design heat input in sub-condition b. has been revised. • The language in sub-condition h. has been revised. • The language in sub-condition i. has been revised. • Sub-conditions j. and k. have been stricken.
4.1.3.	6.1.6.	• The flare name has been changed from "Dehy #2" to "Storage Dehy". This has also been changed in the Emission Units section 1.1. • The language in sub-conditions b., c., e., f., and h. has been revised. • The unnecessary citation of authority has been stricken immediately following sub-condition g. The citation of authority following sub-condition h. should be for the entire condition 6.1.6. with all of its sub-conditions; therefore, the citation has been revised from "4.1.3.h." to "4.1.3." • Unlike the underlying permit, the citations of 45CSR§§2-8.4.b. and 8.4.c. have not been added to the Title V permit condition's citation of authority because these rule sections do not require the permittee to do anything and they are not streamlined by complying with fuel requirements in 6.1.6.d and 6.1.6.e. 45CSR§§2-8.4.b. and 8.4.c. are exemptions from certain testing and monitoring sections of the rule for units that combust only natural gas and have a design heat input less than 100 MMBtu/hr.
4.2.1.	6.2.1.	• The requirement has been revised to reflect the underlying permit. • 45CSR34 has been added to the MACT Subpart HH citations of authority in sub-conditions 6.2.1.a. and b.
4.2.2.	6.2.9.	Requirement 4.2.2. of R13-2397B has been Title V condition 6.2.2. The purpose of this requirement was to monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device to demonstrate compliance with the requirement in condition 6.1.5.g. for emission unit 004-01. While this is no longer an explicit requirement in R13-2397C, this monitoring remains part of the permittee's CAM Plan for 004-01 and will therefore be retained in the revised Title V permit. The citation of 4.2.2. has been stricken from the citation of authority for condition 6.2.2. Requirement 4.2.2. of R13-2397C is new Title V condition 6.2.9. and applies to emission unit 004-02. The second statement in underlying permit requirement 4.2.2.d. reads, "Should the dehydration unit is not in operation within the above noted time period to take a representative the gas sample, the permittee shall the inlet gas sample within 30 days after resuming operations of the dehydration unit." This has been grammatically corrected by this writer to read, "Should the dehydration unit ~~is~~ not be in operation within the above noted time period to take a representative ~~the~~ gas sample, the permittee shall take the inlet gas sample within 30 days after resuming operations of the dehydration unit."

R13-2397C	Title V	Discussion
4.2.3.	6.3.2.	The monitoring language has been revised. The citation of 45CSR§30-5.1.c. has been stricken since the entire condition is based upon the underlying permit requirement.
4.3.1.	6.3.1.	The requirements in 4.3.1. of R13-2397B are now contained in, and superseded by, the requirements of 4.2.1. and 4.2.2. of R13-2397C. The new requirement 4.3.1. of R13-2397C has been incorporated into revised Title V condition 6.3.1. The first part of the underlying permit requirement reads, "Should the permittee elect to utilize other equivalent method(s) than the ones listed in Conditions 4.2.1.d. or 4.2.2.d. provided the method(s) are approved in advance by the Director as part of a testing protocol." This has been grammatically corrected by this writer to read, "Should the permittee elect to utilize other equivalent method(s) than the ones listed in Conditions 4.2.1.d. or 4.2.2.d., ~~provided~~ then the method(s) ~~are~~ shall be approved in advance by the Director as part of a testing protocol." For the Title V permit the underlying permit condition references have been changed to 6.2.1.d. and 6.2.9.d., respectively.
None	6.3.3.	Requirement 4.3.3. in R13-2397B required the permittee to conduct a flare design evaluation. This requirement is no longer in the underlying permit. However, the permittee must maintain a record of the flare design evaluation per requirement 4.4.5. of R13-2397C, which is Title V condition 6.4.5.
None	6.3.4.	Requirement 4.3.4. in R13-2397B required the permittee to conduct a flare compliance assessment. This requirement is no longer in the underlying permit.
None	6.4.3.	Requirement 4.4.5. in R13-2397B is now covered by 4.2.1.a. and 4.2.2.a. in R13-2397C. Permit condition 6.4.3. has been stricken and reserved.
None	6.4.4.	Requirement 4.4.6. in R13-2397B is now covered by 4.2.1.c. in R13-2397C. Permit condition 6.4.4. has been stricken and reserved.
4.4.5.	6.4.5.	The reference to condition 6.3.3. has been stricken since it no longer exists in the underlying permit. The citation of authority has been revised.
4.4.6.	6.4.6.	The language and citation of authority of this requirement have been revised.
None	6.4.7.	This Title V condition has been stricken and reserved since the recordkeeping requirement 4.4.9. in R13-2397B was not directly carried over to R13-2397C. Nevertheless, records pertaining to the wet gas sampling and its analysis must be maintained as required by the first statement in revised operating permit conditions 6.2.1. and 6.2.9. that apply to sub-conditions 6.2.1.d. and 6.2.9.d., respectively.
None	6.4.8.	This Title V condition has been stricken and reserved since the recordkeeping requirement 4.4.10. in R13-2397B was not directly carried over to R13-2397C. Nevertheless, the permittee must maintain records of all monitoring and reports (cf. Title V conditions 3.4.1. and 3.4.2.), and condition 6.5.1. requires reporting of the wet gas stream analysis and PTE estimate modeled using GRI-GLYCalc™. Therefore, such recordkeeping has been maintained in the revised Title V permit though not explicitly written in R13-2397C.

R13-2397C	Title V	Discussion
None	6.5.2.	This Title V condition has been stricken and reserved since the reporting requirement 4.5.2. in R13-2397B was not directly carried over to R13-2397C. Underlying requirement 4.5.1. (Title V condition 6.5.1.) establishes a 90-day deadline to submit reports of testing.

II. **40 C.F.R. 63 Subpart HHH – *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities***. This subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in §63.1271 (cf. §63.1270(a)). According to §63.1270(b), the affected source is each new and existing glycol dehydration unit specified in paragraphs (b)(1) through (3) of §63.1270, which are:

(1) Each large glycol dehydration unit;

(2) Each small glycol dehydration unit for which construction commenced on or before August 23, 2011, is an existing small glycol dehydration unit.

(3) Each small glycol dehydration unit for which construction commenced after August 23, 2011, is a new small glycol dehydration unit.

The permittee stated in the application that the requirements for Dehy 004-02 listed in Section 9.0 of the Title V permit need to be corrected to reflect the classification of the unit as a "small glycol dehydration unit". In §63.1271 are definitions of these two size classifications:

Large glycol dehydration unit means a glycol dehydration unit with an actual annual average natural gas flowrate equal to or greater than 283.0 thousand standard cubic meters per day and actual annual average benzene emissions equal to or greater than 0.90 Mg/yr, determined according to §63.1282(a). A glycol dehydration unit complying with the 0.9 Mg/yr control option under 63.1275(b)(1)(ii) is considered to be a large dehydrator.

Small glycol dehydration unit means a glycol dehydration unit, located at a major source, with an actual annual average natural gas flowrate less than 283.0 thousand standard cubic meters per day or actual annual average benzene emissions less than 0.90 Mg/yr, determined according to §63.1282(a).

The flowrate for 004-02 is 140MMscf/day. Converting cubic feet to cubic meters, this is equivalent to 3,964,359 standard cubic meters per day, which is greater than the threshold of 283,000 standard cubic meters per day. However, the application[1] states that Dehy 004-02 has actual annual average benzene emissions less than 0.9 Mg/year. Since a small glycol dehydration unit is defined by natural gas flow rate **or** actual benzene emissions, Dehy 004-02 meets this component of the definition of a small glycol dehydration unit.

However, another component of the definition of a *Small glycol dehydration unit* is that it is located at a major source, which is defined in §63.1271 of Subpart HHH with certain exceptions:

Major source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control; and

(2) Emissions from processes, operations, and equipment that are not part of the same facility, as defined in this section, shall not be aggregated.

[1] Attachment D Regulatory Discussion.

The regulation also provides its definition of *Facility*, which is useful for interpreting the meaning of a Subpart HHH major source:

> *Facility* means any grouping of equipment where natural gas is processed, compressed, or stored prior to entering a pipeline to a local distribution company or (if there is no local distribution company) to a final end user. Examples of a facility for this source category are: an underground natural gas storage operation; or a natural gas compressor station that receives natural gas via pipeline, from an underground natural gas storage operation, or from a natural gas processing plant. The emission points associated with these phases include, but are not limited to, process vents. Processes that may have vents include, but are not limited to, dehydration and compressor station engines.
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> Facility, for the purpose of a major source determination, means natural gas transmission and storage equipment that is located inside the boundaries of an individual surface site (as defined in this section) and is connected by ancillary equipment, such as gas flow lines or power lines. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Natural gas transmission and storage equipment or groupings of equipment located on different gas leases, mineral fee tracts, lease tracts, subsurface unit areas, surface fee tracts, or surface lease tracts shall not be considered part of the same facility.

The NSR permit writer used HAP emissions from engines C-004 and C-005 and the Storage Dehy with in-line heater for major source determination under Subpart HHH. These sources are either engaged in compressing natural gas into a transmission pipeline system or dehydrating natural gas exiting a storage field prior to entering a transmission pipeline system. The memorandum[2] for administrative update permit R13-2397C states that the potential to emit of any single HAP is less than 10 tpy and the aggregate HAPs are less than 25 tpy. The emissions summary table from the NSR permit memorandum is given below to demonstrate the emissions utilized to make this determination.

HAP PTE of the Natural Gas Storage and Transmission Affected Sources							
Source	Benzene (tpy)	Ethylbenzene (tpy)	Toluene (tpy)	Xylene (tpy)	n-Hexane (tpy)	Formaldehyde (tpy)	Total (tpy)
C-004	0.112	0.006	0.056	0.016	0.026	3.196	3.412
C-005	0.074	0.004	0.037	0.010	0.017	2.019	2.161
Storage Dehy Reboiler*	0.5*	0.70	2.69	4.44	0.35	0.001	8.1*
In-line Heater	0.00002		0.00003		0.02	0.001	0.00002
Totals	0.68602	0.71	2.78303	4.466	0.413	5.217	13.67302

* Permit R13-2397B limits benzene and total HAPs to these levels from the Storage Dehy.

Based upon this, the natural gas transmission and storage facility at the Copley Run Compressor Station is not major for HAPs as defined in 40 C.F.R. §63.1271 and §63.2 and thus Subpart HHH does not apply to the natural gas transmission and storage facility located at the Copley Run Compressor Station.

For this reason, the requirements of Section 9.0 in the operating permit have been stricken and the first condition of each sub-section has been reserved. Additionally, Subpart HHH has been added to the permit shield as section 3.7.2.h.

[2] On page 2 of 6 of the memorandum, Table #2 specifies that aggregate HAPs are 13.67 tpy; total formaldehyde is 5.217 tpy; total xylene is 4.466 tpy; total toluene is 2.783 tpy; and benzene, ethylbenzene, and n-hexane are each less than 1 tpy.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. **40 C.F.R. 63 Subpart HHH – *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities***. According to §63.1270(a), this subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in §63.1271. Subpart HHH defines a "major source" as having the same meaning as in §63.2, except that: (1) Emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control; and (2) Emissions from processes, operations, and equipment that are not part of the same facility, as defined in this section, shall not be aggregated.

   The regulation also provides its definition of *Facility*, which is useful for interpreting the meaning of a Subpart HHH major source:

   > *Facility* means any grouping of equipment where natural gas is processed, compressed, or stored prior to entering a pipeline to a local distribution company or (if there is no local distribution company) to a final end user. Examples of a facility for this source category are: an underground natural gas storage operation; or a natural gas compressor station that receives natural gas via pipeline, from an underground natural gas storage operation, or from a natural gas processing plant. The emission points associated with these phases include, but are not limited to, process vents. Processes that may have vents include, but are not limited to, dehydration and compressor station engines.
   >
   > Facility, for the purpose of a major source determination, means natural gas transmission and storage equipment that is located inside the boundaries of an individual surface site (as defined in this section) and is connected by ancillary equipment, such as gas flow lines or power lines. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Natural gas transmission and storage equipment or groupings of equipment located on different gas leases, mineral fee tracts, lease tracts, subsurface unit areas, surface fee tracts, or surface lease tracts shall not be considered part of the same facility.

   The permittee stated that only HAP emissions from engines C-004 and C-005 and the Storage Dehy with in-line heater should be utilized for major source determination under Subpart HHH. These sources are either engaged in compressing natural gas into a transmission pipeline system or dehydrating natural gas exiting a storage field prior to entering a transmission pipeline system. The memorandum for administrative update permit R13-2397C states that the potential to emit of any single HAP is less than 10 tpy and the aggregate HAPs are less than 25 tpy. Based upon this, the natural gas transmission and storage facility at the Copley Run Compressor Station is not major for HAPs as defined in 40 C.F.R. §63.1270 and §63.2; consequently, Subpart HHH does not apply to the natural gas transmission and storage facility located at the Copley Run Compressor Station.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Not Applicable for minor modifications.
Ending Date: N/A

Point of Contact

All written comments should be addressed to the following individual and office:

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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

No comments were received from U.S. EPA.